

Static Process Modeling with Object Oriented Implementation for Rapid-response Training

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Purpose: Introduce object oriented training techniques that provide a **cost-effective**, on-line resource for use **by multimission** operations personnel.

The Jet Propulsion Laboratory is currently providing operational support to multiple spacecraft encompassing various scientific objectives. These missions each require intense training that covers basic, as well as advanced operational capabilities. Current baselining techniques for capturing system functionality are being implemented using the Automated Training Development System. This method for gathering and storing system task sets provides a launchpad of options for tailoring specific information to end user needs.

As planetary spacecraft become smaller, standardized "plug-in" instruments will dominate the hardware lists of future missions and training will have to adapt its methods. With standardization, modularized capabilities will be easily transferred between spacecraft and development time will decrease for individual missions, allowing greater numbers of missions to occur. With an increase in the total number of launches, training mechanisms will require portability to accommodate current need, and on-line object-oriented training modules are a potential solution for delivery with each instrument or capability.

Static process modeling is an effective method for sequencing instruction where many steps in a procedure or complicated data flow can be expanded. A graphical user interface is an excellent on-line vehicle for transferring information to users. These two techniques are individually effective, but when combined, become an even more powerful training resource. This combination will be used to supplement formal classroom training and/or self-paced instruction, while providing excellent on-the-job, procedural process sequencing. It will also present a time-saving alternative to experienced learners.